

What is claimed is:

1. An apparatus for delivering warm or cool air to the passenger area of a vehicle comprising:

a conduit (10) having a series of baffles (11) which define successive chambers with  
5 alternating openings at the top and bottom of said baffles such that air can flow between said baffles in a serpentine pattern;

a series of thermoelectric devices (14, 15) located in said successive chambers, wherein said devices have a hot surface and a cold surface, said devices arranged in alternating fashion, with said device having a cold surface located near the top of said successive chamber and said  
10 device having a hot surface located near the bottom of the next successive chamber along said conduit; said cold surface devices arranged near the crest of the serpentine pattern of air flow and said hot surface devices arranged near the trough of the serpentine pattern of air flow;

an inlet (12) to allow air flow into said conduit;

an outlet (13) for air to flow out of said conduit;

15 means for supplying power for operation of the thermoelectric device;

means for regulating the temperature of the air heated or cooled by said apparatus.

2. The apparatus in claim 1, wherein the hot surface thermoelectric devices are arranged in increasing temperature from said inlet to said outlet to further urge air flow.

3. The apparatus in claim 1, wherein ram air from vehicle movement is used to  
20 supplement the flow of air through said passenger area.

4. A method of supplying heated or cooled air to the interior of a motor vehicle, the method comprising;

providing a conduit having a series of baffles which define successive chambers with

alternating openings at the top and bottom of said baffles such that air can flow between said baffles in a serpentine pattern;

providing a series of thermoelectric devices located in said successive chambers, wherein said devices have a hot surface and a cold surface, said devices arranged in alternating fashion, with said device having a cold surface located near the top of said successive chamber and said device having a hot surface located near the bottom of the next successive chamber along said conduit; said cold surface devices arranged near the crest of the serpentine pattern of air flow and said hot surface devices arranged near the trough of the serpentine pattern of air flow;

providing an inlet to allow air flow into said conduit;

providing an outlet for air to flow out of said conduit;

providing means for supplying power for operation of the thermoelectric device;

providing means for regulating the temperature of the air heated or cooled by said apparatus, wherein said alternating hot surface and cold surface thermoelectric devices urge the flow of air through said conduit by creating a convection current.